

# **EXHIBIT 43**

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UNITED STATES DISTRICT COURT  
NORTHERN DISTRICT OF CALIFORNIA  
SAN JOSE DIVISION

- - - - - x Case No.  
: 5:14-cv-05344-BLF (PSG)  
:  
CISCO SYSTEMS, INC., :  
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Plaintiff, :  
:  
vs. :  
:  
ARISTA NETWORKS, INC., :  
:  
Defendant. :  
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VIDEOTAPED DEPOSITION OF GREG SATZ  
March 23, 2016  
HIGHLY CONFIDENTIAL - ATTORNEYS' EYES ONLY  
VOLUME 1

Reported by  
Brooke R. Bohr  
CSR No. 753  
Job No 2272380  
Pages 1 - 168

<p>1 VIDEOTAPED DEPOSITION OF GREG SATZ, 2 taken at the instance of the Defendant, at the 3 offices of TUCKER &amp; ASSOCIATES, 605 W. Fort 4 Street, in the City of Boise, State of Idaho, 5 commencing at 10:10 a.m., on March 23, 2016, 6 before Brooke R. Bohr, CSR, RPR, a Notary Public 7 in and for the State of Idaho, pursuant to notice, 8 and in accordance with the applicable Rules of 9 Civil Procedure.</p> <p>10 11 A P P E A R A N C E S 12 FOR PLAINTIFF John M. Neukom, Esq. 13 QUINN EMAMUEL URQUHART &amp; SULLIVAN LLP 50 California Street, 22nd Floor 14 San Francisco, CA 94111 (415) 875-6320 15 johnneukom@quinnemanuel.com 16 FOR DEFENDANT Brian L. Ferrall, Esq. 17 KEKER &amp; VAN NEST LLP 633 Battery Street 18 San Francisco, CA 94111 (415) 391-5400 19 bferrall@kvn.com 20 21 22 23 24 25</p>	<p>1 BOISE, IDAHO 2 March 23, 2016, 10:10 a.m. 3 4 THE VIDEOGRAPHER: We are now on the record. 5 Please note that the microphones are 6 sensitive and may pick up whispering and private 7 conversations. Please turn off all cell phones or 8 place them away from the microphones as they can 9 interfere with the deposition audio. Recording 10 will continue until all parties agree to go off 11 record. 12 My name is David Cromwell, representing 13 Veritext. The date today is March 23, 2016, and 14 the time is approximately 10:10 a.m. This 15 deposition is being held at Tucker &amp; Associates 16 located at 605 West Fort Street, Boise, Idaho 17 83702, and is being taken by counsel for the 18 defendant. 19 The caption of this case is Cisco 20 Systems, Inc. v. Arista Networks, Inc. This case 21 is filed in the United States District Court, 22 Northern District of California, San Jose 23 Division, Case No. 5:14-CV-05344-BLF PSG. The 24 name of the witness is Greg Satz. 25 At this time, the attorneys present in</p>
<p>1 W I T N E S S 2 GREG SATZ Page: 3 Examination by Mr. Ferrall 5 4 Examination by Mr. Neukom 151 5 Further Examination by Mr. Ferrall 158 6 7 * * * * * 8 9 E X H I B I T S 10 11 Page: 12 Exhibit 400 Greg Satz LinkedIn 13 13 Exhibit 401 "TOPS-20 DECnet-20 Programmers Guide and Operations Manual" 22 14 15 Exhibit 402 One-page Document with 36 Bates No. KL-883 16 Exhibit 403 Document Beginning Bates No. 69 ARISTANDCA00022465 17 18 Exhibit 404 Document Beginning Bates No. 84 CSI-CLI-00359132 19 Exhibit 405 One-page Document Bates No. 106 CSI-CLI-00746924 20 21 Exhibit 406 Document Bates No. CSI-CLI-01828732 112 Through Bates No. CSI-CLI-01828783 22 Exhibit 407 Document Beginning Bates No. 141 CSI-CLI-01295215 23 24 Exhibit 408 Document Beginning Bates No. 143 CSI-CLI-01295181 25 * * * * *</p>	<p>1 the room will identify themselves and the parties 2 they represent. 3 MR. FERRALL: Brian Ferrall of Keker &amp; 4 Van Nest on behalf of Arista Networks. 5 MR. NEUKOM: John Neukom for the plaintiff. 6 THE COURT: Our court reporter, Brooke Bohr, 7 representing Veritext, will swear in the witness, 8 and we can proceed. 9 10 GREG SATZ, 11 produced as a witness at the instance of the 12 Defendant, having been first duly sworn, was 13 examined and testified as follows: 14 15 EXAMINATION 16 BY MR. FERRALL: 17 Q. Good morning, Mr. Satz. Can you please 18 state your full name. 19 A. Greg Leonard Satz. 20 Q. Mr. Satz, you are not represented by 21 counsel today; is that right? 22 A. Correct. 23 Q. Have you ever been deposed before? 24 A. I have. 25 Q. All right. So you know the basic</p>

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<p>1 you were there?</p> <p>2 A. Yes, that's fair to say.</p> <p>3 Q. Did you have a role in determining how</p> <p>4 the command line interface would evolve?</p> <p>5 MR. NEUKOM: Objection; vague.</p> <p>6 Q. BY MR. FERRALL: Yeah. Strike that.</p> <p>7 Let me rephrase that.</p> <p>8 A. I was going to ask you for a</p> <p>9 clarification.</p> <p>10 Q. Did you have input into the command</p> <p>11 line interface?</p> <p>12 A. Yeah. I was going to draw a</p> <p>13 distinction for the benefit of that. So the</p> <p>14 command line interface is a generic term, isn't</p> <p>15 descriptive enough, because there's the content of</p> <p>16 it and there's the mechanics of it. So for the</p> <p>17 purpose of answering, I had some responsibility</p> <p>18 for the mechanics of it; the content of it was</p> <p>19 distributed around the engineering organization in</p> <p>20 an effort to deliver services and products.</p> <p>21 Q. Okay. Can you help me understand</p> <p>22 what -- explain a little more what the difference</p> <p>23 is between the mechanics and the content?</p> <p>24 A. So everyone knows these days the term</p> <p>25 API, application programming interface. That's</p> <p>Page 10</p>	<p>1 performance, a traffic prioritization. Somebody</p> <p>2 else would write that and then have the code that</p> <p>3 did that trick, whatever that trick was, and we</p> <p>4 didn't have anything to do with that aspect of it</p> <p>5 because that was somebody else's responsibility,</p> <p>6 somebody else's coding, another manager, another</p> <p>7 organization within engineering.</p> <p>8 Q. So the commands themselves, would you</p> <p>9 consider that part of this API or is that distinct</p> <p>10 from it?</p> <p>11 MR. NEUKOM: Objection; vague and compound.</p> <p>12 Q. BY MR. FERRALL: Meaning the words of</p> <p>13 the command itself, is that --</p> <p>14 A. Was content.</p> <p>15 Q. That's content, not the API part?</p> <p>16 A. Right.</p> <p>17 Q. All right.</p> <p>18 A. The code itself that did the parsing</p> <p>19 was ultimately what Terry Slattery and Rob Widmer</p> <p>20 and other folks redesigned.</p> <p>21 Q. Let's go back a little bit to your</p> <p>22 pre-Cisco employment history. Can you summarize</p> <p>23 that for me, please.</p> <p>24 A. I mean, how far back do we want to go?</p> <p>25 Q. Well, just -- just in terms of the</p> <p>Page 12</p>
<p>1 probably the closest generic term that would</p> <p>2 describe the mechanics. We would provide a way</p> <p>3 other people could add a command, provide hooks</p> <p>4 back to code they would write. And so the -- what</p> <p>5 we call the parser itself would then take textual</p> <p>6 tokens, process them, and ultimately get some code</p> <p>7 executed. And we didn't have to know what code</p> <p>8 that was, that was for some other programmer to</p> <p>9 use the API, but it was my group's organizational</p> <p>10 responsibility or -- basically, Cisco had</p> <p>11 thousands of things swirling around and thousands</p> <p>12 of things constantly hitting it every few weeks.</p> <p>13 So you would just start picking things up and</p> <p>14 start doing them. And so I think I just picked</p> <p>15 the parser up and started doing it.</p> <p>16 Q. So would the parser be part of the</p> <p>17 mechanics, what you refer to as the "mechanics"?</p> <p>18 A. Yes, or the API. Basically, how you</p> <p>19 write a command.</p> <p>20 Q. I see. All right. And then when you</p> <p>21 refer to the content of the command line</p> <p>22 interface, can you give me some examples of that?</p> <p>23 A. Sure. The show process command or if</p> <p>24 you were using some sort of tunnel or security</p> <p>25 filter that you would block or permit or enhance</p> <p>Page 11</p>	<p>1 places you've worked. If you could list where you</p> <p>2 worked after -- from college on.</p> <p>3 A. So, technically, my first job out of</p> <p>4 college after my undergraduate degree was New York</p> <p>5 University Graduate School of Business; I then</p> <p>6 transferred to Menlo Park to SRI International;</p> <p>7 and from there to Stanford University; and from</p> <p>8 there to Cisco.</p> <p>9 Q. Okay.</p> <p>10 (Discussion off the record.)</p> <p>11 (Exhibit 400 marked.)</p> <p>12 Q. BY MR. FERRALL: So, Mr. Satz, as</p> <p>13 Mr. Neukom predicted, I presented to you a</p> <p>14 printout of what I believe is your LinkedIn</p> <p>15 profile; is that right?</p> <p>16 A. Yes, it sure looks like me.</p> <p>17 Q. All right. Okay. And is -- do you</p> <p>18 keep this relatively up to date?</p> <p>19 A. Not very consistently, no.</p> <p>20 Q. Okay. All right. I just -- I wanted</p> <p>21 to mark it for the sake of seeing if this -- it</p> <p>22 helps put dates on your various pre-Cisco</p> <p>23 employment.</p> <p>24 A. Yeah, this is -- this is a good</p> <p>25 rendition.</p> <p>Page 13</p>

1 "Stanford Ethertip/Gateway User and Configuration  
2 Guide."  
3 A. Yeah.  
4 Q. Had you ever seen this before?  
5 A. I'm sure I have. I don't have a  
6 recollection of it, and I don't remember this date  
7 at all. This is a pretty late date.  
8 Q. Do you know Glenn Truitt?  
9 A. I do.  
10 Q. What did he work on at Stanford?  
11 A. I no longer remember. I do know that  
12 he had his hands in this software, but a lot of  
13 people did. Jeffrey Mobile, Benji Levy. This  
14 was -- this code was a lot of research work. And  
15 so if one of the graduate students felt there was  
16 an application they wanted to experiment with,  
17 this really was the beginning of what then became  
18 the multi-protocol router and Cisco's router.  
19 So -- oh, yeah, there's some really old -- really  
20 old stuff here.  
21 Q. Did you become familiar with some of  
22 the commands from this device?  
23 A. Yes.  
24 Q. Yeah? How did you become familiar with  
25 it?

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1 A. Well, we were users of these devices  
2 when I -- the state of the art back then, before  
3 there were all of these computers and laptops, is  
4 you used a basic terminal with RS232 into some  
5 device that converted the commands into network  
6 protocols and used that across the network to talk  
7 to mainframes. That was state of the art.  
8 So on my desk at Stanford and at SRI  
9 was these computers that were just terminals.  
10 They -- all they did was take a capture of  
11 keypress and generate a character. And that  
12 character was shipped across the network  
13 somewhere. And the computer would get that  
14 character, do something with it, and ship you back  
15 the output.  
16 So that's what a TIP was, terminal  
17 interface processor. It allowed you to take an  
18 RS232 terminal and sit on the network without  
19 talking to the computer directly. And I think  
20 Kirk was responsible for gluing the TIP and the  
21 Gateway software together, because they were two  
22 different software bases.  
23 Q. So if I could ask you to turn to Page 6  
24 of that Exhibit 36.  
25 A. Okay.

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1 Q. This was a -- begins a section called  
2 "privileged commands." Do you see that?  
3 A. Um-hum. I do.  
4 Q. And were you aware of a privileged mode  
5 in this -- in the TIP Gateway?  
6 A. Sure.  
7 Q. Explain what was the purpose of the  
8 privilege mode there.  
9 A. It mimicked the TOPS-20 style of  
10 parsing, and it -- there were commands that people  
11 would use to just have the device do what it does  
12 day-to-day, and there were commands that  
13 administrators or users who needed to maintain the  
14 device in the network would use. And so privilege  
15 commands were the latter set, and TOPS-20 had a  
16 very similar model.  
17 Q. And this document says in the -- I  
18 guess in the second sentence, it's -- or I'll read  
19 the first sentence also: There's a second set of  
20 commands available to the Ethertip user. The two  
21 command levels are disjoint. That is, the  
22 privileged mode is not a superset of the normal  
23 mode.  
24 Do you see that?  
25 A. Um-hum.

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1 Q. So what did you understand to be the  
2 purpose of the normal mode, then, as opposed to  
3 the privileged mode?  
4 A. Day-to-day users don't need privileged  
5 mode. They go in, they make their connections,  
6 they do what they do to get their work done, and  
7 that's the extent of their relationship to the  
8 software.  
9 The people who administer the device  
10 and who might need to add a new feature or upgrade  
11 the software would have to use privileged mode.  
12 And it is a complete separate set of functions.  
13 And in particular for the programmers,  
14 they -- you know, they made a mistake, and they've  
15 got to go figure out why something is not working,  
16 especially for research work.  
17 Q. I want to ask about some of the  
18 commands that follow here on Page 6.  
19 "Access.lists," I see under 3.1.  
20 A. Um-hum.  
21 Q. Was that a command you were familiar  
22 with?  
23 A. That's a very common and important  
24 command.  
25 Q. What is an access.list command?

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<p>1 A. It gave the device the ability to 2 decide what data flows it would allow through or 3 prevent, and/or connections that people could make 4 to the box. So if, for example, your department 5 wasn't allowed to use this particular box, we 6 could create an access.list so you couldn't use 7 it.</p> <p>8 Q. Was -- to your knowledge, was 9 access.list used in any other operating systems or 10 softwares, software?</p> <p>11 MR. NEUKOM: Objection; foundation.</p> <p>12 THE WITNESS: I can't say I've ever seen 13 access.list before this application.</p> <p>14 Q. BY MR. FERRALL: The next command here 15 is -- it says "arp.table." What is that, do you 16 know?</p> <p>17 A. Yes, address resolution protocol. So 18 that was the mechanism that computers used to 19 discover each other's -- I'm going to get really 20 boring here -- 48-bit ethernet address and match 21 it to their 32-bit IP address.</p> <p>22 Q. And was the address resolution protocol 23 something that was known outside of the Stanford 24 network context?</p> <p>25 A. Oh, yes, it was a standard.</p> <p>Page 30</p>	<p>1 just some here I don't -- I have no recollection 2 of.</p> <p>3 Q. Had you ever heard of or used show 4 commands in any context before you went to Cisco? 5 A. Every computer has show commands. I 6 mean every operating system had used the word 7 "show" as a way to convey internal information 8 outward.</p> <p>9 Q. What about banner, which, by the way, 10 I see at the bottom of Page 8 of Exhibit 36. But 11 my question is more general, which is were you 12 aware of a banner command before you went to 13 Cisco?</p> <p>14 A. I don't remember. I had used, by then, 15 anywhere from 15 to 20 different operating 16 systems. And so I -- banner doesn't stand out as 17 anything.</p> <p>18 Q. If I could ask you to look at Page 13 19 of this exhibit, Exhibit 36. Do you see on that 20 page there are a number of commands that have in 21 brackets the word "no" before the command?</p> <p>22 A. Um-hum. I do.</p> <p>23 Q. Do you know what that means?</p> <p>24 A. It is an optional keyword.</p> <p>25 Q. And what does it do? What function</p> <p>Page 32</p>
<p>1 MR. NEUKOM: Objection; lack of foundation, 2 calls for speculation.</p> <p>3 Q. BY MR. FERRALL: Now, don't worry, I'm 4 not going to go through every command in here.</p> <p>5 A. You'll need coffee.</p> <p>6 MR. NEUKOM: And I think, actually, Brian, I 7 didn't -- you said a little while back that the 8 next -- just to make sure the transcript is clean, 9 after discussing access.list, you said the next 10 one listed is arp.table.</p> <p>11 MR. FERRALL: That's -- you're right. 12 That's not correct. That was -- I skipped one.</p> <p>13 MR. NEUKOM: Okay.</p> <p>14 MR. FERRALL: Thank you.</p> <p>15 Q. BY MR. FERRALL: Were you familiar with 16 show commands used in the Stanford TIP?</p> <p>17 A. Yeah. I didn't do a lot of work with 18 the TIP, so I can't say I have a great familiarity 19 with this version of the software.</p> <p>20 Q. Okay.</p> <p>21 A. By the time I spent time with the 22 software, it had been rewritten and the parser, 23 which is the interesting part for this discussion, 24 had been changed. So a lot of these commands are 25 almost like looking at them new again. There's</p> <p>Page 31</p>	<p>1 does it serve?</p> <p>2 A. Excuse me. Optional keywords just 3 allow you to include them or not include them. So 4 you -- I don't know if you're asking me what it 5 means in relationship to each command or the 6 generic optional keyword.</p> <p>7 Q. Well --</p> <p>8 A. There's layers.</p> <p>9 Q. Okay. Fair enough.</p> <p>10 Is there an overall purpose of -- if 11 you wanted -- if you decided to include "no" as 12 an option before these commands, is there a 13 generic -- general way of describing what that 14 would do?</p> <p>15 MR. NEUKOM: Objection; vague and compound.</p> <p>16 THE WITNESS: It is a negation in this 17 particular usage. This, again, gets back to the 18 mechanics or the API versus the content. So the 19 confusion is I'm going to -- as a somewhat of a 20 programmer or someone who has worked at the 21 building of this, I'm more coming from a here is 22 the mechanical word. An optional keyword is an 23 optional keyword. What it actually means is going 24 to be interpreted by the code that is written. So 25 in this particular case, the "no" in front would</p> <p>Page 33</p>



<p>1 did, while it had the same capability, was more 2 robust, had a higher performance capability. 3 Because as the networks evolved, you needed to be 4 able to push data faster. And Stanford's code was 5 basic. It was there to just move the data, not 6 move it with the requirements that the next few 7 years dictated. And a lot of what Kirk did was to 8 create high-speed interfaces, and that's what 9 Wellfleet showed up to compete on was could they 10 go faster than Cisco. And it created an arms 11 race, as it were. Who could go faster. 12 Q. Now, you mentioned IETF, and I think 13 earlier today you mentioned RFCs. Can you tell me 14 what an RFC is? 15 A. Request for comments. 16 Q. And what's the purpose of a request for 17 comment? 18 A. To create a protocol definition or 19 solution and to publish it as a request for 20 comments in an effort to move it forward as a 21 proposed solution and a trial solution and then a 22 committed solution, as the solution progressed 23 through a community and an implementation and a 24 trial and then some feedback. So it was an 25 engineering group. Their goal was to deliver</p> <p style="text-align: right;">Page 66</p>	<p>1 evolved. And I can't speak to that as much. 2 Q. BY MR. FERRALL: Okay. But -- 3 A. But managing that was important. 4 Q. And just by way of example, you 5 mentioned IGRP. 6 A. Um-hum. 7 Q. And that was a technology that Cisco 8 chose to keep proprietary, right? 9 A. Yes. 10 Q. All right. And there were other 11 technologies that Cisco was involved in 12 developing, like BGP, for example? 13 A. Right. 14 Q. And that Cisco chose to publish RFCs 15 about, right? 16 A. Well, Cisco didn't publish the RFCs. 17 Cisco -- a person like Kirk might be a part of the 18 team that developed BGP and then Kirk would have 19 his name on it with a Cisco title, but it wasn't 20 Cisco, it was actually Kirk. And the RFC itself 21 is an open document. So just to make that 22 distinction. 23 If there was a protocol that showed up 24 from the IETF, Cisco was typically involved. 25 Q. And what was your involvement in</p> <p style="text-align: right;">Page 68</p>
<p>1 something working. Companies would try to use it 2 as -- to competitive advantages. But the 3 standards body existed to create a level playing 4 field. 5 Q. And did you have a view at the time as 6 to the importance of publishing technology through 7 RFCs? Well, let me strike that. That was a 8 garbled question. 9 In your experience at Cisco in the 10 early years, was the sharing of technology through 11 RFCs important to Cisco? 12 MR. NEUKOM: Objection; vague, compound, and 13 lack of foundation. 14 THE WITNESS: Back then it wasn't clear how 15 successful Cisco would be and/or whether we might 16 maintain or keep a competitive advantage. So 17 there really was a series of tradeoffs in the 18 decision to create an RFC and make it a community 19 effort or to create a proprietary solution and 20 then decide whether to make it an RFC later. Most 21 of the times, it was to make the customers happy. 22 If the customers wanted something documented, we 23 would typically figure out how to comply with 24 that. Later, as the company got larger and I 25 wasn't involved, managing the IETF and RFC process</p> <p style="text-align: right;">Page 67</p>	<p>1 IETF -- in IETF? Did you -- 2 A. I would go to the meetings and attend 3 various functions and decide, based on the 4 software responsibility I had, to participate in 5 different standards or not. 6 MR. FERRALL: Let's mark this as the next 7 exhibit. 8 (Exhibit 403 marked.) 9 THE WITNESS: More ancient history. 10 Q. BY MR. FERRALL: Yeah. So I've marked 11 as Exhibit 403 what I think is an IETF RFC for a 12 simple network management protocol, SNMP. Do you 13 recognize this, Mr. Satz? 14 A. I do. 15 Q. Did you have involvement in the SNMP 16 RFC? 17 A. I did. 18 Q. What was that involvement? 19 A. I was just part of the working group 20 that went through the process of deciding what 21 would be done as a solution to network management. 22 And SNMP was the output. 23 Q. Do you remember when this SNMP working 24 group began to discuss this solution? 25 A. Probably a couple years before this</p> <p style="text-align: right;">Page 69</p>

<p>1 document, at least a year.</p> <p>2 Q. And do you remember any particular</p> <p>3 parts that you contributed, specifically?</p> <p>4 A. I think I did an RFC for a MIB for</p> <p>5 CLNS, another protocol stack that since</p> <p>6 disappeared.</p> <p>7 Q. Was there a -- have you ever heard of</p> <p>8 the term "SNMP server"?</p> <p>9 A. Oh, the command line, parsed for the --</p> <p>10 yeah -- configuration? Um-hum. Yes, I created</p> <p>11 that.</p> <p>12 Q. What's -- is there such a thing as an</p> <p>13 SNMP server, or what does that term mean?</p> <p>14 A. Wow.</p> <p>15 MR. NEUKOM: Objection; lack of foundation,</p> <p>16 calls for opinion testimony.</p> <p>17 THE WITNESS: I think all of that code is</p> <p>18 gone now. The SNMP server was the way to tell the</p> <p>19 router software that it was to be an SNMP -- it</p> <p>20 was to start the SNMP protocol. So it would then</p> <p>21 begin to listen to and process SNMP packets. And</p> <p>22 it was probably one of the first commands</p> <p>23 implemented as part of this RFC to implement it</p> <p>24 and create an SNMP protocol within the Cisco</p> <p>25 software.</p> <p>Page 70</p>	<p>1 called an SNMP community.</p> <p>2 Do you see that?</p> <p>3 A. Yes.</p> <p>4 Q. Is that consistent with your definition</p> <p>5 of SNMP community that you just described?</p> <p>6 A. Yeah. It's more mind-numbing when you</p> <p>7 see it in words.</p> <p>8 Q. I couldn't agree more.</p> <p>9 A. Yeah. It turns out a lot of these</p> <p>10 things are written to be really obtuse. They are</p> <p>11 not intended to be obtuse, but they have a</p> <p>12 structure to them that when you turn it into</p> <p>13 English or a simple picture it takes a lot of this</p> <p>14 out. They tried to make a more generic</p> <p>15 mathematical underpinning to a mapping that added</p> <p>16 a level of complexity that just ultimately wasn't</p> <p>17 necessary. But they were trying to be very</p> <p>18 flexible.</p> <p>19 Q. Okay. But this notion of community as</p> <p>20 described in the Exhibit 403 is the same as the</p> <p>21 community that you understood when you --</p> <p>22 A. I made the implementation simpler</p> <p>23 because of adding a whole layer. The idea, if I</p> <p>24 can remember any of this craziness, is that you</p> <p>25 would have a table of -- no different than a</p> <p>Page 72</p>
<p>1 MR. NEUKOM: And, Brian, I rescind my prior</p> <p>2 objection. Pardon me.</p> <p>3 THE WITNESS: Hey, just because I write it,</p> <p>4 doesn't mean I'm the expert.</p> <p>5 MR. FERRALL: You can't -- you can't</p> <p>6 rescind. No rescinding objections, Mr. Neukom.</p> <p>7 Q. BY MR. FERRALL: What's -- what's the</p> <p>8 notion of community in the context of SNMP?</p> <p>9 A. After a while, you start running out of</p> <p>10 words, so you pick one that tries to create a</p> <p>11 sense of purpose. And so "community" was an</p> <p>12 attempt to describe a collection of users who</p> <p>13 would have a specific purpose with respect to</p> <p>14 using the protocol. It was nothing more than an</p> <p>15 authorization or an access. A password, as it</p> <p>16 were.</p> <p>17 Q. So if you look at Page 7 of this</p> <p>18 Exhibit 403.</p> <p>19 MR. NEUKOM: Sorry. Which page are we on?</p> <p>20 MR. FERRALL: Page 7.</p> <p>21 Q. BY MR. FERRALL: If you see under</p> <p>22 Section 3.2.5, Definition of Administrative</p> <p>23 Relationships, and then the second paragraph there</p> <p>24 says, quote, appearing of an SNMP agent with some</p> <p>25 arbitrary set of SNMP application entities is</p> <p>Page 71</p>	<p>1 database in today's language -- and you could be</p> <p>2 able pull out individual things. And so they</p> <p>3 wanted to be able to map authorizations to</p> <p>4 individual entries in the database. And the</p> <p>5 implementation I did was to make it an all or</p> <p>6 nothing. Because if somebody wanted that level of</p> <p>7 specificity they'd ask for it and then we'd go</p> <p>8 back and put all that crazy complexity into the</p> <p>9 code. But just because the standard made it that</p> <p>10 flexible we weren't going to go that far. It was</p> <p>11 an engineering choice and cost benefit.</p> <p>12 Yeah, I don't know if you've ever heard</p> <p>13 of Vint Cerf?</p> <p>14 Q. Sure.</p> <p>15 A. So one of the more inspiring aspects of</p> <p>16 this work, we had three different protocols</p> <p>17 compete to be the network management RFC, and so</p> <p>18 there was just three groups of engineers that were</p> <p>19 not happy, or wanted their choice. And I watched</p> <p>20 Vint come in and broker a -- mediate, and I had</p> <p>21 never seen that kind of mediation happen before,</p> <p>22 let alone difficult engineers. And so it was a</p> <p>23 very inspiring time to watch somebody. And then</p> <p>24 so, you know, Vint was the author of a lot of the</p> <p>25 TCP/IP protocols. So people respected him and</p> <p>Page 73</p>



<p>1 were willing to listen to his know. So I --</p> <p>2 that's a really good story about Vint.</p> <p>3 Q. Well, on this issue of SNMP community,</p> <p>4 do you remember how this discussion came about in</p> <p>5 the context of the IETF working group?</p> <p>6 A. What happened with this protocol is</p> <p>7 these four people went off and created this,</p> <p>8 brought it back to the IETF and said we should use</p> <p>9 this. And it was actually done at the behest of</p> <p>10 the mediation result by Vint to say, okay, we're</p> <p>11 going to take all of these ideas that you have for</p> <p>12 all of your different proposals and we're going to</p> <p>13 bring it down to this. So they went and did this.</p> <p>14 So it was really done in a small group of these</p> <p>15 four, maybe a half-dozen people, published this</p> <p>16 document and then they brought it back to the IETF</p> <p>17 to ratify or get the feedback loop that the IETF</p> <p>18 is.</p> <p>19 So the communities were intended to be</p> <p>20 a very flexible generic solution to an access</p> <p>21 mechanism as they wrote it.</p> <p>22 Q. Okay. And so you -- you implemented a</p> <p>23 simpler version --</p> <p>24 A. A subset.</p> <p>25 Q. -- of the community that these four</p> <p>Page 74</p>	<p>1 that one little line of parsing, no. I mean</p> <p>2 overall the task was probably two to three months</p> <p>3 to do the full SNMP stack.</p> <p>4 Q. Okay. And how long did it take you to</p> <p>5 come up with the names for the commands for the --</p> <p>6 for SNMP functionality?</p> <p>7 A. 15 seconds, conceptually, five seconds.</p> <p>8 I mean, this is the name, type it in, move on.</p> <p>9 Q. And to be clear, though, the original</p> <p>10 parser on the first generation of Cisco products,</p> <p>11 that was already written by the time you joined;</p> <p>12 is that right?</p> <p>13 A. Well, the EtherTIP-style parser, to use</p> <p>14 this document as a basis, wasn't a parser in a</p> <p>15 sense that it had a common code base. It was just</p> <p>16 individual programming statements to consume</p> <p>17 tokens. So the distinction being there's a bunch</p> <p>18 of subterfians (sp) whose job it is to do</p> <p>19 something versus individual lines of code</p> <p>20 scattered thousands of places that consumed tokens</p> <p>21 that parse. So that was the EtherTIP style and</p> <p>22 then Terry Slattery and Widmer put it together in</p> <p>23 a common set of code and created data structures</p> <p>24 and a programming interface and documentation on</p> <p>25 how to use it.</p> <p>Page 76</p>
<p>1 authors had proposed.</p> <p>2 A. Yeah. Exactly. And that was in this</p> <p>3 '89 timeframe. Since then the code has been --</p> <p>4 that I wrote has been thrown out and they bought a</p> <p>5 third party, I think from Mr. Case. I think Cisco</p> <p>6 went and bought his software and just got a whole</p> <p>7 bunch of new features instead of writing it</p> <p>8 themselves and moved on. And I have no idea what</p> <p>9 those parse commands look like. I don't even</p> <p>10 think I've -- I still run a Cisco router, and I</p> <p>11 don't think I've enabled SNMP.</p> <p>12 Q. So in implementing, for example, the</p> <p>13 SNMP server community function, were you</p> <p>14 responsible either directly or indirectly for</p> <p>15 implementing the functional code?</p> <p>16 A. I was.</p> <p>17 Q. All right. And was that directly?</p> <p>18 Were you actually writing that --</p> <p>19 A. I wrote the code.</p> <p>20 Q. You wrote the code?</p> <p>21 A. The first version, yes.</p> <p>22 Q. And for that function, do you have any</p> <p>23 sense of how long it took you to write that code?</p> <p>24 A. No. Because it was all part of a much</p> <p>25 larger set of functionality, and so to pull out</p> <p>Page 75</p>	<p>1 So by the time -- I don't remember</p> <p>2 where SNMP falls within that. And I can't</p> <p>3 remember when I typed it in, if I was typing it</p> <p>4 into the old style or Slattery had already done</p> <p>5 his work. Do you have a date for Slattery's --</p> <p>6 Q. Yeah. And that's what I was just</p> <p>7 looking for. I don't --</p> <p>8 A. Yeah, because I think I -- I think</p> <p>9 these commands were before Slattery's work,</p> <p>10 because I was a manager by then when I got</p> <p>11 Slattery to redo the parser.</p> <p>12 Q. Right. And I will want to get to that.</p> <p>13 I've got to dig documents out. But at 1990, 1991,</p> <p>14 does that sound about right --</p> <p>15 A. Yeah.</p> <p>16 Q. -- for Terry Slattery's work?</p> <p>17 A. Yeah. This was the late '80s, yeah.</p> <p>18 Q. Okay. And while we're there, am I</p> <p>19 right that you were the person who hired Terry,</p> <p>20 right?</p> <p>21 A. I did.</p> <p>22 Q. Okay. All right. We'll come back to</p> <p>23 that in a little bit.</p> <p>24 You mentioned an RFC for a MIB?</p> <p>25 A. Um-hum.</p> <p>Page 77</p>

<p>1 service. And so I called them a server, like you 2 would on an operating system running as a separate 3 process. So it was just a distinction I happened 4 to use just from where I had come from. 5 Q. In the Unix context, what -- how was 6 that manifest itself, or what's an example of that 7 in the Unix context? 8 A. Well, Unix is what is on these phones. 9 It is Linux. It is just the next generation of 10 it. And so it is any arbitrary process running in 11 the background that people might call a demon that 12 provides a service. I mean you -- your -- you go 13 to the web, you're talking to a web server. It 14 just happens to be a dash in the configuration 15 language. 16 Q. Right. 17 A. Maybe that helps with the modern 18 analysis in comparison, as opposed to a routing 19 protocol or a switching engine or a link layer, 20 like an ARP. I mean, there's all these different 21 components. 22 Q. Okay. I think we can put that aside. 23 So are you familiar with the terminal 24 monitor command? 25 A. Yes.</p> <p>Page 98</p>	<p>1 anymore. 2 Q. So am I right, then, that "monitor" in 3 the command terminal monitor refers to monitoring 4 the bug diagnostics? 5 A. It is actually monitoring anything that 6 gets printed to the console port. 7 Q. Okay. 8 A. Which the important stuff was the 9 diagnostics. It is the old world screen sharing 10 of today. 11 Q. And did you write the code to implement 12 that feature? 13 A. Yes. 14 Q. When did you do that, approximately? 15 A. Wherever it shows up in the manuals. 16 Q. Early, early years? 17 A. Yeah, because we needed that to help 18 improve our proficiency to debug so we didn't have 19 to be at the office. 20 Q. And how did you come upon the selection 21 of the command terminal monitor for that? 22 A. The same expediency I did all of them: 23 Monitor, sounds good, next. 24 Q. Okay. 25 A. Yeah. Unless Kirk didn't like my</p> <p>Page 100</p>
<p>1 Q. And do you know the origins of that? 2 A. I think I wrote it. 3 Q. Okay. What function does the terminal 4 monitor command invoke? 5 A. I now use it without thinking. So the 6 ability to figure out what's happening in a piece 7 of software requires some diagnostics. And so we 8 created a lot of debug commands that would print 9 out the debugging. The debugging typically only 10 went to the console which, in the good old big 11 iron hardware, wasn't a bitmap display, but just 12 an RS-232 port, and usually it was hooked to a 13 good old-fashioned terminal in today's 14 perspective. So the stream of debug diagnostic 15 messages would come out this console port and if 16 you're sitting at home, trying to connect in and 17 do some debugging, it couldn't get there from 18 here. The data was going over to your office in 19 some terminal and the only way to look at it was 20 to attach a stream back to where you were, and 21 that was what monitor did. It said send me 22 anything that came out on the console to my 23 virtual terminal connection. 24 Now all laptops have bitmap displays 25 and fancy graphics and no one even says RS-232</p> <p>Page 99</p>	<p>1 choice, I think it was just whatever that struck 2 me as a -- as what it did as I could perceive it 3 from the point of view at the time. 4 Q. Have you ever heard of the term -- 5 well, strike that. 6 Have you ever heard of people in your 7 field characterizing a command as a "generic 8 command"? 9 A. Yes. 10 Q. What does that mean to you? 11 A. Like "show." It is everywhere. 12 Q. And how would you contrast that concept 13 of a generic command like show versus a non- 14 generic command? 15 A. Its applicability to many different 16 aspects or areas. So to -- I mean to use the word 17 "generic" is not really clear, but it's -- 18 probably if you look at it in the hierarchy sense, 19 the top node is pretty generic. And depending on 20 how many commands under it -- so relationship to 21 the other commands around it or below it, if it is 22 the root of a very deep tree, it's going to be 23 more generic than if it's just one layer deep. 24 And its applicability therefore expands out. 25 Q. So if I understand you, then, at a high</p> <p>Page 101</p>

<p>1 Q. Yeah.</p> <p>2 A. I wasn't hands-on at that point.</p> <p>3 Q. Okay.</p> <p>4 A. There are generations of people who</p> <p>5 went on to do that stuff.</p> <p>6 Q. So, Mr. Yeager -- you're not</p> <p>7 Mr. Yeager. I was looking at. . .</p> <p>8 Mr. Satz, do you own Cisco stock</p> <p>9 anymore?</p> <p>10 A. No. Well, I probably have some shares</p> <p>11 in a retirement account, I think. So, yeah, I</p> <p>12 probably have a few, but not a lot.</p> <p>13 Q. Do you own any Arista stock?</p> <p>14 A. No. I have stayed out of the</p> <p>15 technology buying. I had enough risk in that.</p> <p>16 Q. That's a wise move for the past six</p> <p>17 months, right?</p> <p>18 A. Well, pick your time.</p> <p>19 Q. Right. Okay.</p> <p>20 Did you -- have you spoken to anyone</p> <p>21 in-house at Cisco, employee at Cisco, about this</p> <p>22 case?</p> <p>23 A. Kirk. After Morgridge, I had dinner</p> <p>24 with him, and then I had dinner with him again a</p> <p>25 few weeks ago. Both times it came up; both times</p> <p style="text-align: right;">Page 150</p>	<p>1 testified that you don't remember any instances,</p> <p>2 any historical instances, of Cisco using the word</p> <p>3 "proprietary" with respect to the CLI command set.</p> <p>4 Do I have that right?</p> <p>5 A. Yes.</p> <p>6 Q. Okay. So I just have one question</p> <p>7 which goes the other way.</p> <p>8 Based on your experiences at Cisco,</p> <p>9 do you remember any instance in which Cisco made</p> <p>10 an announcement or made a statement that its CLI</p> <p>11 command set was -- it was okay if competitors</p> <p>12 wanted to use it?</p> <p>13 A. Never heard that either.</p> <p>14 Q. Okay. And you -- I think you smiled a</p> <p>15 little bit when you said you never heard that.</p> <p>16 Why?</p> <p>17 A. No, it's a brilliant question. I</p> <p>18 appreciated it.</p> <p>19 The only thing I can say in my</p> <p>20 recollection of usage is because -- I wouldn't</p> <p>21 call it a universal language, but it was the</p> <p>22 Cisco language, that there was a big effort to</p> <p>23 script Cisco. And outside of SNMP, there was no</p> <p>24 real remote control interface. So if you as a</p> <p>25 network operator wanted to toggle an interface up</p> <p style="text-align: right;">Page 152</p>
<p>1 he said, "After your deposition we'll talk. I'm</p> <p>2 not going to talk to you before." And I said,</p> <p>3 "Fine with me."</p> <p>4 I'm trying to remember if there was</p> <p>5 anything interesting. He was pretty good -- my</p> <p>6 wife was commenting on it, "Yeah, he really wanted</p> <p>7 to tell you stuff, but he really kept his mouth</p> <p>8 shut." Yeah, that was -- he's smart.</p> <p>9 I'll have to -- let's let that sit.</p> <p>10 We're getting to the end of the day. It's not</p> <p>11 working as well.</p> <p>12 Q. Anyone other than Mr. Loughed?</p> <p>13 A. E-mail with Terry Yeager. I think I</p> <p>14 touched Tony Li on Facebook. He just said "yep"</p> <p>15 in his way. I think that's about it.</p> <p>16 MR. FERRALL: Okay. Well, thank you for</p> <p>17 your time, Mr. Satz. I have no further questions.</p> <p>18 THE WITNESS: Wow, that's an abrupt ending.</p> <p>19 Thank you.</p> <p>20 MR. NEUKOM: I have a few.</p> <p>21 THE WITNESS: Please.</p> <p>22</p> <p>23 EXAMINATION</p> <p>24 BY MR. NEUKOM:</p> <p>25 Q. A little bit earlier today, I think you</p> <p style="text-align: right;">Page 151</p>	<p>1 or down or change some performance parameters,</p> <p>2 there was a whole push in the '90s to connect to</p> <p>3 the router, type -- robotically type commands at</p> <p>4 it.</p> <p>5 And so there were scripting interfaces</p> <p>6 or scripting attachments that, you know, as</p> <p>7 engineers we're, like, okay, we could see your</p> <p>8 need to do that. Great. And we don't have a</p> <p>9 better solution than that and that's the way to</p> <p>10 control it in any way you want. We don't have to</p> <p>11 write SNMP every time you need one new thing. So</p> <p>12 it became the control language or the scripting</p> <p>13 language. So I wouldn't say we said it was open,</p> <p>14 but we knew and needed that customers have the</p> <p>15 ability to meet their needs controlling it.</p> <p>16 Q. Sure. But to the best of your</p> <p>17 memory --</p> <p>18 A. No.</p> <p>19 Q. -- you never remember Cisco ever making</p> <p>20 a statement publicly or privately --</p> <p>21 A. No.</p> <p>22 Q. -- that it was okay for any competitor</p> <p>23 to be using this --</p> <p>24 A. No. Not competitors, no.</p> <p>25 Q. -- CLI command set?</p> <p style="text-align: right;">Page 153</p>

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<p>1 Exhibit 405 is a one-page document</p> <p>2 marked CSI-CLI-00746924.</p> <p>3 Exhibit 406 begins CSI-CLI-01828732,</p> <p>4 and for this document I'll read the last number</p> <p>5 because I think we're all unclear whether it is</p> <p>6 one versus multiple documents. This ends with</p> <p>7 Bates stamp CSI-CLI-01828783.</p> <p>8 Exhibit 407 begins Bates stamp</p> <p>9 CSI-CLI-01295215.</p> <p>10 And Exhibit 408 begins</p> <p>11 CSI-CLI-01295181.</p> <p>12 MR. NEUKOM: Thanks all.</p> <p>13 MR. FERRALL: Agreed. Thank you.</p> <p>14 (The deposition concluded at 3:31 p.m.)</p> <p>15 -oo0oo-</p> <p>16</p> <p>17</p> <p>18</p> <p>19</p> <p>20</p> <p>21</p> <p>22</p> <p>23</p> <p>24</p> <p>25</p> <p style="text-align: right;">Page 166</p>	<p>1 REPORTER'S CERTIFICATE</p> <p>2</p> <p>3</p> <p>4 I, BROOKE R. BOHR, a Notary Public in</p> <p>5 and for the State of Idaho, do hereby certify:</p> <p>6 That prior to being examined, the</p> <p>7 witness named in the foregoing deposition was by</p> <p>8 me duly sworn to testify the truth, the whole</p> <p>9 truth, and nothing but the truth;</p> <p>10 That said deposition was taken down by</p> <p>11 me in shorthand at the time and place therein</p> <p>12 named and thereafter reduced into typewriting</p> <p>13 under my direction, and that the foregoing</p> <p>14 transcript contains a full, true, and verbatim</p> <p>15 record of the said deposition.</p> <p>16 I further certify that I have no</p> <p>17 interest in the event of the action.</p> <p>18 WITNESS my hand and seal March 30, 2016.</p> <p>19</p> <p>20</p> <p>21</p> <p>22</p> <p>23 &lt;%signature%&gt;</p> <p>24 Brooke R. Bohr</p> <p>25 CSR No. 753</p> <p style="text-align: right;">Page 168</p>
<p>1 VERIFICATION</p> <p>2 I declare under penalty of perjury</p> <p>3 under the laws that the foregoing is</p> <p>4 true and correct.</p> <p>5</p> <p>6 Executed on _____, 20____,</p> <p>7 at _____.</p> <p>8</p> <p>9</p> <p>10</p> <p>11</p> <p>12 _____</p> <p>13 WITNESS SIGNATURE</p> <p>14</p> <p>15</p> <p>16</p> <p>17</p> <p>18</p> <p>19</p> <p>20</p> <p>21</p> <p>22</p> <p>23</p> <p>24</p> <p>25</p> <p style="text-align: right;">Page 167</p>	